



GARY C. WANG, FCAS, MAAA, CSPA

Senior Consulting Actuary | Bloomington, Illinois



Gary has worked extensively on the application of advanced statistical modeling techniques to the insurance process. His experience in predictive analytics applications include rating and underwriting plan design, homeowners by peril analyses, auto vehicle characteristics analyses and scorecard development, and territory boundary development.

Gary has assisted companies in the design and implementation of rating plans and underwriting scorecards, assisted clients with incorporating data sources into classification plans, and enhanced territory classification utilizing advanced analytical methodologies for client companies.

He has also designed custom vehicle classification scorecards, designed and maintained inspections prioritization scorecards, and peer-reviewed and advised companies on their analytics processes.

Gary's current focus is on the analysis of unfair discrimination and bias in rating and the interpretation and significance of the various tests and metrics associated with the fairness tests. He has presented numerous times on this topic to both actuarial and non-actuarial audiences.

Gary re-joined Pinnacle in 2022 after two years with a large consulting firm. Prior to first joining Pinnacle, Gary was a pricing actuary for three of the top 10 insurance companies.

★ Qualified to sign statements of actuarial opinion per the American Academy of Actuaries (AAA)

YEARS OF EXPERIENCE

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EDUCATION

University of Illinois, 1993

B.S. Mathematics

Northern Illinois University

Graduate-level course work in mathematics, 1996 – 1999

M.S. Mathematics Education, 1996

CERTIFICATIONS

Casualty Actuarial Society (CAS), Fellow, 2004

AAA, Member, 2003

The CAS Institute, Certified Specialist in Predictive Analytics (CSPA), 2017

SAS® Certified Predictive Modeler Using SAS® Enterprise Miner™ 13

PROFESSIONAL VOLUNTEERISM

CAS Ratemaking, Product and Modeling (RPM) Seminar Planning Committee, 2009 – Present

Co-Authored **2025 CAS Research Paper Series on Race and Insurance Pricing** (Phase 2):

- “Potential Unintended Impacts of Bias Mitigation in a Competitive Insurance Market”
- “Practical Application of Bias Measurement and Mitigation Techniques in Insurance Pricing”

PROFESSIONAL PRESENTATIONS

“Bias Testing Regulation and Case Study,” Society of Actuaries (SOA) Valuation Actuary Meeting, August 2025; SOA Valuation Actuary Meeting (Virtual), September 2025

“Detecting & Mitigating Potential Bias in Insurance Pricing,” International Association of Black Actuaries (IABA) Annual Meeting, August 2025

“Fairness,” Farm Bureau Actuarial Conference, July 2025

“Potential Unintended Impact of Bias Mitigation,” CAS Race and Insurance Pricing Virtual Seminar, April 2025; CAS Webinar, July 2025

“Fairness in Insurance Modeling,” Casualty Actuaries of New England (CANE) Spring Meeting, March 2025; Midwest Actuarial Forum (MAF) Spring Meeting, April 2025; Southwest Actuarial Forum (SWAF) Virtual Spring Meeting, June 2025; Casualty Actuaries of the Northwest (CANW) Spring Meeting, June 2025

“Understanding the Value and Limitations of Simulated and Synthetic Tabular Data,” Pinnacle APEX Webinar, May 2025

“Practical Application of Bias Measurement and Mitigation Techniques in Insurance Rating,” CAS Race and Insurance Pricing Virtual Seminar, April 2025

“An Update on the Discussion of Fairness in Insurance,” Florida Market Insurance Summit, February 2025

“2025 Update to the Fairness in Insurance Discussion,” Pinnacle APEX Webinar, February 2025

“Bias Testing Implementation Workshop,” CAS Annual Meeting, November 2024

“Whole Vehicle Rating: An Introduction to the CARFAX Vehicle Build Score,” In2Risk Annual Meeting, November 2024

“Bias and Insurance: Emerging Regulation Worldwide and Potential Unintended Impacts of Regulatory Restriction,” Casualty Loss Reserve Seminar (CLRS), September 2024

“Fairness and Risk Based Pricing,” Central States Actuarial Forum (CSAF) 2024 Annual Meeting, September 2024

“Identifying and Mitigating Bias: The Actuary’s Role,” IABA Annual Meeting, August 2024

“Fairness and Risk Based Pricing,” Farm Bureau Actuarial Conference, July 2024

“99 Problems but Bias Ain’t One??” CAS RPM Seminar, March 2024; CAS Webinar, July 2024

“Potential Unintended Impacts of Bias Mitigation on Other Protected Class Dimensions: A Preview of New CAS Research,” CAS Seminar on Reinsurance, June 2024

“Bias Testing Implementation” Workshops, CAS Spring Meeting, May 2024

“Bias and Insurance: A Preview of CAS Phase 2 Race and Insurance Pricing Research,” CAS RPM Seminar, March 2024

“Stepping into the Actuarial Modeling Wonderland,” CAS RPM Seminar, March 2024

“Fairness in Insurance: On BIFSG and Categorizing Sources of Bias,” CANE Spring Meeting; MAF Spring Meeting, March 2024

“2024 Update to the Fairness in Insurance Discussion,” Pinnacle APEX Webinar, February 2024

“Predictive Data Modeling Part II: An Illustrated Guide to The Mathematics of Bayesian Improved First Name Surname Geocoding (BIFSG),” Pinnacle Blog, January 19, 2024

PAST PROFESSIONAL VOLUNTEERISM

CAS Exam Committee	2005 – 2016
Race and Insurance Research Phase 2 Task Force	2023 – 2025

EMPLOYMENT HISTORY

Pinnacle Actuarial Resources, Inc.	2022 – Present
Willis Towers Watson	2020 – 2022
Pinnacle Actuarial Resources, Inc.	2005 – 2020
Scor Reinsurance Company	2003 – 2005
Kemper Insurance Companies	2000 – 2003
Allstate Insurance Company	1999 – 2000